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ON COCA LEAF PROBLEMS

La Paz, 16 - 26 November 1964

SUBSTITUTE CROPS AND DEVELOPMENT OF LIVESTOCK BREEDING IN THE HIGHLANDS WHERE THE COCA LEAF IS CONSUMED[1]

by

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1/ The appended document by Mr. Argos Rodriguez was originally presented to the Consultative Group on Coca Leaf Problems which met at Lima from 26 November to 7 December 1962. It will represent a valuable contribution to this meeting also, and it is therefore distributed to participants.

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SUBSTITUTE CROPS AND DEVELOPMENT OF LIVESTOCK BREEDING
IN THE HIGHLANDS WHERE THE COCA LEAF IS CONSUMED

The Inter-American Consultative Group on Narcotics Control which was organized y the United Nations under the special programme of technical assistance provided or by General Assembly resolution 1395 (XIV) met at Rio de Janeiro in 1961.

The meetings of this Group, which were convened at the request of the Governments f Brazil and Peru, were attended by senior officials of the competent control epartments of Argentina, Bolivia, Brazil, Canada, Chile, Colombia, Cuba, Ecuador, exico, Panama, Paraguay, Peru, United States of America, Uruguay and Venezuela. bservers from the World Health Organization and the Pan American Sanitary Bureau and he Assistant Secretary-General of Interpol also attended the meetings. The nited Nations provided the secretariat services for the Group, and also the services f consultants.

The Group considered the question of international and national narcotics control rom a comprehensive point of view, particularly its specifically South American aspects. ne of the aspects considered was the problem of coca leaf chewing in the highlands of olivia and Peru and in some districts of southern Colombia. The Groups finding was hat "the chewing of (coca) leaves constituted a dangerous habit, detrimental not only to he health, but also to the productivity of the persons affected and thus formed an bstacle to economic development". Another assertion made was that measures of rohibition and police enforcement could not, by themselves, solve the problem of oca leaf chewing; in other words, one of the Groups conclusions was that the problem ould only be solved by economic and social advancement of the affected regions, which, n the Group's view, could not be accomplished without the general progress and evelopment of the countries concerned as a whole. However, it realized - and this s clear from the records of the proceedings - that the measures required to bring bout the necessary far-reaching development in economic and social matters could not e taken within the limited resources of the affected countries themselves, and that arge-scale assistance would be needed. The Group then stated that coca leaf chewing hould be included among the problems dealt with under national economic and social evelopment schemes with outside multilateral or bilateral aid.

The Group further concluded that the international organizations engaged in rogrammes of technical assistance - in particular FAO and WHO - could play a very seful part in this connexion. It was of the opinion that, in view of the difficulties

that will inevitably arise in tackling this question, a seminar, to be organized with the technical assistance of the United Nations, for officials concerned with the problem would be very useful either for the adoption of more appropriate measures or for the evaluation of the various development programmes in so far as they relate to the abolition of the coca leaf chewing habit.

The seminar having been organized at the request of the Government of Peru, the Consultative Group on Coca Leaf Problems considered it desirable when the agenda was being prepared to ask FAO for its opinion under item (aa) of the work programme on "possible economic measures connected with the problem", particularly as regards the possibility of applying the following measures:

1. Introduction of substitute crops and promotion of livestock breeding in the highlands where the coca leaf is consumed.

2. Contribution to the solution of the problem which may be afforded by resettlement programmes adopted as part of a general policy.

In other words, FAO is approached with four basic requests, namely:

1. To give a technical opinion on questions relating to substitute crops for the coca bush.

2. To report on current programmes for the promotion of economic and social development, whose implementation necessarily involves the coca leaf chewing problem.

3. To indicate the possible future contribution of technical assistance programmes to the solution of the coca problem.

4. To make such recommendations as the preceding points may suggest for the solution of the problem viewed as an aspect of the various national problems of development or Indian integration.

We are facing a complex problem with a great many attendant circumstances which are responsible for the existence of a pernicious habit affecting a large number of human beings. The general result is a vice in some, but also a need in many of the victims to chew coca leaf as a means of making up from the action of the alkaloid the minimum nutrition required to sustain human life socially and at work, in others a need to chew as a means of reducing the daily expenditure on food in order to have some money to spend on other no less important requirements such as food or care of the family.

In other words, we are facing an immense economic, technical and nutritional problem: economic, since the crop is undoubtedly a source of revenue for the producers

and the countries in which it is grown; technical, since a co-ordinated, comprehensive and probably long-term plan is needed to achieve any success with substitute crops; nutritional, since it is an urgent matter to provide coca leaf chewers with the necessary food to enable them to abandon the habit, as has been pointed out on many occasions previously and during this seminar.

Bearing these aspects in mind, I would again remind you that FAO's function is to convince by scientific demonstrations, to assist national organizations in the broad sense of making the individual feel that he is capable of coping with his own problems, to advise rather than to coerce, to persuade by personal example. The suggestions with respect to substitute crops are based on two main principles which indicate the philosophy underlying the approach to this problem adopted by the FAO Plant Production and Protection Branch.

1. It is pointed out that sudden interference with the cultivation and harvesting of coca by the Indians could be successful as far as the people and countries involved are concerned on the following two basic conditions:

(a) that a crop is found that suits the environment in which the coca bush grows and that gives about the same return as coca;

(b) that measures are devised to ensure full satisfaction of the nutritional needs of those individuals who have adopted the habit through under-nourishment.

(c) Lastly, FAO states that research and agricultural tests should be conducted to acclimatize suitable crops in the areas in which the coca bush has its habitat. These are, in brief, the ideas of the FAO Plant Production Division, but before considering recommendations let us see what were the views of the Consultative Group on Coca Leaf Problems as regards the recommendations concerning the possibility of limiting the production and regulating the distribution of the coca leaf and gradually abolishing the habit of coca leaf chewing, which are summarized in paragraph (e) of its report NAR/COCA.CONF./3., Lima 1962, which is headed "Substitute crops" and states that the governments concerned should so far as possible encourage the growing of substitute crops. They might inter alia, establish a preferential system of agricultural, economic and technical assistance for the benefit of any coca leaf producer wishing to grow some other crop. As a complement to this policy it would be desirable to take administrative steps to prevent agricultural loans being granted for the production of coca leaves. The Agricultural Banks of Peru and Bolivia have already adopted this rule, and the purpose of this recommendation is to make the rule, which is not yet applied universally, an official regulation.

It would be advisable, when granting agricultural loans, to give preference to those agriculturists who do not produce coca leaves and undertake not to grow coca bushes.

Similarly, it would be well to consider the desirability of requiring any land owner who grows coca bushes as well as other crops to pay higher interest than those who do not produce coca leaves.

We are obviously now getting nearer to the heart of the problem. In the endeavour to find substitute crops, account must be taken of a great many factors, ranging from the strictly technical or agricultural to the economic; for the profit-earning capacity of the crops must not be overlooked.

The coca bush is not a very exacting plant. It flourishes in vast areas of South America between 300 and 2,500 metres above sea level and requires a tropical to sub-tropical climate with temperatures varying between 22 and 32° centigrade. While in some areas the transplanted seedling is protected from insolation by taller trees, the most general method is to transplant the seedlings then leave them untended. until the time comes to harvest the leaves. Thus it is a hardy species, seldom affected by fungoid or insect pests. Once the bush is established it lives for many years - the books mention 20 to 30 years - during which time cultivation is reduced to watering the bushes two or three times in the winter season in the valleys and to weeding twice in the rainy season in mountainous areas and valleys.

It follows that there is generally no replacement of plants, fertilizing or plant care in the form of removing bushes with low yields; on the contrary, the crop is left to its fate.

There is another point which must be mentioned again. Two days ago in the seminar Dr. Carranza, the Peruvian representative, observed, very appropriately, that the land on which the coca bush is grown is of two distinct types - sloping and flat - to which from an agricultural point of view might be added third-rate land where manuring, watering and cultivation are very difficult and first-rate land which is easier to cultivate. The main problems with the third-rate land are the difficulty of working on hillsides and actual soil constituents.

As far as concerns substitute crops, we are already aware of the need for research and experiment to find other crops which, within about the same profit margins, will produce more for the same amount of work or respond to a greater effort by producing a good and very remunerative crop.

Passing on to another no less important aspect of substitution, I am bound to refer to the publication "Ten years' Operation of the State Coca Monopoly in Peru" which states that as the coca bush is mainly grown under conditions and on land unsuitable for other crops, the economy of these widespread centres revolves around the product, in which 177 million sols have been invested. Of course there is a contradiction between the unsuitable land referred to in that publication and the first-class land referred to by the Peruvian representative, Dr. Carranza, and my own personal experience of the land in Yungas and Chapare (Bolivia).

That publication also states that, according to the Monopoly's surveys, there are 13,975 cultivators of the coca bush and 11,767 merchants trading in coca leaves. It further states that, in addition to transactions by occasional middlemen and others interested in barter, it is estimated that 110,683,230 sols change hands in the coca leaf trade which has its origin in the smallholding system. The net yield from taxes in 1959 was more than 27 million sols.

As I do not wish to tire you, I will mention only one further point relating to the census of real property completed on 31 December 1959 in the three (northern, central and southern) regions of the country, which gives the following figures: 13,975 rural properties and leasehold, 16,092 hectares, and 296,090,050 bushes with a probable yield in 1960 of 11,068,323 kg. It is encouraging that production in 1960 amounted to 9,003,274 kg and estimated production in 1961 was 8,753,576 kg, indicating a slow but seemingly steady decline.

The report concludes that the collection of taxes is not the only problem involved in the administration of the Coca Monopoly, there being many other problems that have to be faced in order to ensure that no interests suffer. The Monopoly collaborates in the production and sale of the leaf and in finding markets, maintains a balance between landlord and grower, helps the small grower with advice when pests appear or weather is bad, and campaigns to prevent his abandoning land given over to monoculture. Advice to growers has taken the form of dissemination of literature, the sending of Quechua-speaking personnel to explain the Monopoly's proposals, etc., etc.. None of all this has been said in a spirit of criticism but only to indicate how difficult it is for the experts to work towards crop substitution with definite support under national plans. I shall revert to this point shortly.

Let us now look at the position in Bolivia. It was stated in an article by Mr. Raúl Pérez Alcala in the Bulletin on Narcotics, Vol. IV, No. 2, April-June 1952 (United Nations, Department of Social Affairs, New York) (page 14) that "there are about 6,000 hectares under coca in the Yungas region of La Paz, and about 600 in Cochabamba. The yield per hectare is approximately 700 kilogrammes, giving an annual income of some 20,000 bolivianos." (Note that at the time bolivianos were 170 to the dollar). Pérez Alcalá said that "the national production of coca is estimated at 4,500,000 kilogrammes, of which over 450,000 kilogrammes are exported to Argentina yearly".

Two days ago the Bolivian Minister of Health told us most sincerely that strong vested economic interests have come out against proposed plans to reduce or abolish coca-bush cultivation. In Bolivia no less than 23,500 hectares of good sub-tropical farm land are used for coca-bush cultivation, with an average yield of 12,000,000 kg of leaves. The experts estimate that approximately half this quantity is chewed and the remainder is converted into cocaine hydrochlorate for export. If we estimate the value at 10 sols per kg, which is the Peruvian Coca Monopoly's estimate, but remember that it is an artificial value, since Bolivian coca contains a lower percentage of cocaine than the Peruvian (0.26 - 0.50 for Bolivia and 0.80 for Peru), we would arrive at an approximate and probably inaccurate figure of 120,000,000 sols.

Those figures show that in ten years of United Nations activity and advice the cultivated area has quadrupled, and it is reasonable to assume that production has also. Here is food for thought!

Summing up the preceding facts, we cannot but conclude, as far as crop substitution is concerned, that there are in Peru and Bolivia alone some 40,000 hectares under coca, involving transactions totalling 300,000,000 sols between the two countries; and there are 25,000 families in Peru either producing or trading in coca leaves and a, to me, unknown number in the producing areas of Bolivia.

For all these reasons an immediate start must be made on this problem of substitute crops. But the first steps, in FAO's opinion, must be experiments, surveys and studies so that when FAO does make a recommendation it will provide a sound and effective solution to the problem put to it.

Regarding tropical and sub-tropical crops whose soil and climatic requirements are similar to those of the coca bush, I should mention coffee, with an average yield of 2,000 kg per hectare in the Yungas region of Bolivia. A recommendation on coffee would

be useful if large producing countries voluntarily granted some preference to the disposal of coffee from former coca-producing areas - although I naturally put this forwa as a mere suggestion, since an awkward economic, and quite unromantic, problem is involved. Tea might also be considered as a promising crop, mainly because the yield per plant is high - apparently higher than that of the coca bush.

Among other crops which might be mentioned as suitable for conditions in these areas are citrus fruits, bananas, avocado pears, pineapples and yuccas; but every case demands tests and studies of cultivation methods, adaptation, productivity, costs of introduction, production, manufacturing and processing, packing and distribution. In short, the approach must be scientific, i.e. designed to obtain the best possible return from a crop by scientific methods; for that purpose crop substitution by itself is not enough; it must have many facets, e.g. restrictions to prevent coca bush cultivation from increasing and thus allow time for the initial scientific measures to get off to a good start. In that sense, the restrictions already imposed or which are to be imposed on coca-bush cultivation by countries like Peru and Bolivia are promising. There is also the purely technical aspect of research on remunerative crops to be introduced gradually but energetically in coca-producing areas.

On behalf of FAO, I recommend to this seminar the intensification of agricultural research to determine definitively which crops are truly remunerative. This work might be undertaken by existing or proposed new experimental stations and paid for out of national budgets or with funds from other sources which are opposed to coca-bush cultivation, the sole aim being to finance the necessary research.

However, this will not be all that is required, since adequate transport facilities to move crops are lacking, as are suitable industrial storage plants; and, in the matter of marketing, an understanding of the problem with which coca chewing confronts the countries concerned when they try to dispose of their produce on competitive markets. But all this is only what used to be known as "progress" - and is today called "national development". And so we come back to the first point on which we all agreed, namely that the coca leaf chewing problem is essentially an economic and social problem.

The second aspect of today's topic is the development of livestock breeding in the highlands where the coca leaf is consumed. In that context I want to tell you about the Integrated Nutrition and Food Programme (INFP), in which FAO is co-operating with UNICEF and the other specialized agencies taking part in the United Nations Andean-Indian Programme.

This technical assistance programme is being carried out in Peru as part of the Puno-Tambopata Programme by the Ministries of Work and Indian Affairs, Public Health and Social Welfare, Agriculture and Education; in Colombia with the technical co-operation of the Ministry of Health, the National Nutrition Institute and the Ministry of Education; in Bolivia with the Ministries of Rural Affairs and Health, and the Advisory Board on Colonization in particular. Under the National Rural Development Programme INFP activities are designed to improve the state of health of the Indian population through educational programmes the purpose of which is to obtain maximum yields of agricultural and livestock products to provide food through various interrelated activities, as the fundamental principles governing its activities show.

The following are some of the essential aims of INFP:

1. To provide courses on food and nutrition in schools and health centres.

2. To increase production of foodstuffs with a high nutritional value, e.g. vegetables, meat and fish.

3. To distribute foodstuffs with a high nutritional value, vitamin and mineral additives (powdered milk, etc.) to improve the Indian family's diet.

4. To train national staff in the various agencies taking part in INFP.

FAO is co-operating particularly in sections 2 and 3 of this programme which has already been in operation for a year, providing a variety of specialists for the project, e.g. in nutrition and home economics, agricultural extension work, horticulture, poultry-farming and rabbit-breeding. All these specialists have been or are taking part not only in seminars and specialized courses but are also doing field work in the laying-out and supervision of market gardens and farms and in nutrition, food and home economics projects. As an illustration of FAO's co-operation in national projects, there is the case of Peru, where 31 pilot market gardens have been started and demonstrations given in more than 92 schools on nutrition and food. It should be emphasized that all these projects are part of a systematic plan whereby it is hoped through education to promote better living conditions and hence to arouse disgust of the habit of coca leaf chewing.

The guiding principle is the same as that underlying the United Nations Andean-Indian Programme, namely to educate in the school, in the home and in the community in order to promote economic, and hence social, progress in the area.

The first stage, now completed by FAO experts taking part in INFP was largely signed to increase the production of vegetables, since they are foodstuffs with a gh nutritional value which must be introduced into the diet of the Indian population. has taken a year to teach how lettuce, cabbage, cauliflower, beetroot, parsley, lery, spinach, carrots, onions, tomatoes, squashes, radishes, green peas, asparagus d turnips, are grown, from sowing through bedding out to transplanting, manuring d protection against disease and pests.

As regards poultry, although incubation experiments in the highlands have proved satisfactory, the possibility is being considered of taking chicks to the schools part of a poultry development project now under way.

There is a school and family rabbit project now in operation, based on the loan a pair of rabbits which, once they have littered, are lent on in rotation, provision eing made for periodic replacement.

Before ending my account of the problems of the highlands I should like to put efore you an old FAO idea that now perhaps regains its topicality: namely that it ight be worth while to encourage the growing of indigenous crops, such as quinoa chenopodium quinoa), ulluco (ullucus tuberosus), oca oxalis (oxalis tuberosa), chita (amarantius caudatus), cañahua (chenopodium palidicaule), and mashua (tropeolum uberosus), all of which were very important native foodstuffs in the time of the nca empire, and some of which are rich in protein. All these crops would also need odern scientific treatment to increase yield, and develop vast areas inhabited by ndians who have until now lived in destitution.

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CONTRIBUTION WHICH CAN BE MADE TO THE SOLUTION OF THE COCA LEAF PROBLEM BY RESETTLEMENT PROGRAMMES AS PART OF A GENERAL POLICY[1]

by

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1/ The appended document by Mr. Argos Rodríguez was originally presented to the Consultative Group on Coca Leaf Problems which met at Lima from 26 November to 7 December 1962. It will represent a valuable contribution to this meeting also, and it is therefore distributed to participants.

CONTRIBUTION WHICH CAN BE MADE TO THE SOLUTION OF THE PROBLEM BY RESETTLEMENT PROGRAMMES AS PART OF A GENERAL POLICY

The document on the conclusions and recommendations contained in the Report of the Consultative Group to Study Coca Leaf Problems (NAR/COCA.CONF./3) reproduces the resolutions adopted by the Economic and Social Council on the basis of that report and the principal decisions of the Commission on Narcotic Drugs relating to the same problem of coca leaf chewing. On page 5 of that document, section A entitled "Recommendations relating to the principal factors which lead to the habit of coca leaf chewing" states that the key to the problem is to improve the living conditions of the populations concerned. In the detailed analysis which follows, food is placed first among the essentials for the achievement of the desired aims, and health second, followed by housing, education, employment, expansion of agricultural credit and transport.

For the successful implementation of such a complex series of recommendations it is obviously necessary to establish a co-ordinated planning system covering all those aspects, so that none of them has to be dealt with in an improvised manner.

It follows logically that some adjustment will be necessary in order to ensure a better use of human and material natural resources in particular geographical areas. Progressive planning will be needed to achieve the desired social progress which, as far as the topic under consideration today is concerned, must take the form of an improved standard of living that will enable the indigenous populations to abandon the habit of coca leaf chewing.

In the countries which are affected by this habit we find a paradoxical situation - unsuitable areas have far too many inhabitants who as a result are socially and economically submerged, while in contrast, large areas which would provide better living prospects are almost devoid of population.

What is needed to alter that situation and promote the material advancement of areas with good potentialities?

The answer is that favourable conditions should be provided so as to attract voluntary migration from the poor area to the new area with its better living prospects, in other words, resettlement.

Obviously, before this can be done, studies are required, for instance censuses, studies of soil conditions, of the vegetable and animal species which are likely to succeed in the areas concerned, communications and market prospects for produce in sectors in which other regions are deficient, or in which there is evidence of growing needs. The term "pre-settlement" is applied to such studies.

In countries of the Andean area, like Peru, Bolivia and Ecuador, agriculture is primitive: there has been no technical progress in densely populated areas which as a result show the characteristics of under-development and accompanying poverty. Coincidentally, those deprived peasant masses provide the best medium for a spread of the habit of coca leaf chewing.

There is a state of affairs which must be remedied and the United Nations, through its Andean Indian Programme, has submitted and is carrying out plans to promote the development of new rural communities in other areas, which are being settled as a means of promoting the social, cultural and economic advancement of the Indian populations concerned.

This brings us to the topic which we have to consider today. We see that it is necessary to break away from this inadequate and unsatisfactory state of affairs through a definite plan which defines the aims in view and provides the means to achieve them. This can be accomplished by mobilizing national forces to co-operate with international agencies in order to ensure that rural labour will constitute a stimulus to constant social advancement and not a permanent sentence to poverty, as it does at present.

Thus we all of us have a certain obligation to fulfil - the citizens of the countries concerned because of the urgent necessity to integrate the inhabitants of these areas into their countries, and we technicians because we must collaborate with them to achieve concrete results. It is essential that we should combine our efforts to obtain better nutrition, clothing, employment and above all a better future for those who chew coca not as an ineradicable habit but from pressing need.

It is essential, I repeat, to encourage the creation of new rural communities in new areas as part of a technically integrated plan, to provide for their development, in other words their active participation in all aspects of national life, and to keep private and communal initiative alive in these communities

in order that they may become effective regional economic bases which will soon begin to exercise a beneficent influence around them and will not remain static and vegetate, not constituting a genuine rural community, but exhibiting all the characteristics of small broken-down villages.

The United Nations, through its Andean Indian Programme, has been working along these lines since 1953, first directing pre-settlement activities, then setting up so-called direct action centres, trying to make the centres demonstrate to neighbouring communities a new way of life, and seeking eventually to transfer executive responsibility to nationals of the country concerned.

The execution of this Andean Programme is co-ordinated by the ILO, in collaboration with the Governments of the countries concerned, and with the technical co-operation of FAO, UNESCO, WHO and other United Nations bodies.

It can be said that at the present time, apart from the general plans which are being implemented, United Nations activities are mainly concerned with three fundamental points, namely:

1. Pre-settlement studies, of which an example is the study being carried out in the Puno region of Peru by FAO in collaboration with the Ministries of Agriculture, Labour and Indian Affairs, Health, Education and Public Works. Its object, broadly speaking, is to decide which areas are suitable for settlement by Indians from the Andean plateau.

The first stage consisting in the reconnaissance of the region, bounded by the Tambopata and Inambari rivers in the Department of Puno, has been completed, and basic material, such as maps, aerophotometric surveys, and essential information on land tenure has been assembled.

The second stage will comprise detailed studies and general research with a view to achieving better land selection, and the third and final stage will consist in the regulation of the technical and institutional aspects of settlement, with emphasis on suitable crops, organization of the health system, land tenure, education, transport and communications, drainage, trade, and other economic and social aspects which are considered important. FAO is at present engaged in carrying out the first stage of this programme.

Another of the points to which the United Nations is devoting attention is the resettlement of spontaneous migration, i.e. the second basic aspect to which I referred earlier. It concerns population groups from densely populated areas which have moved on their own initiative and inclination to new areas in which comprehensive plans are needed to help the settlers to learn efficient cultivation techniques, advise them in the acquisition of suitable equipment either through rural credits or by gift, and above all ensure that their levels of education and health are adequate. The co-ordination of all these elements will we hope, make it possible to pass more rapidly through successive stages of development or general advancement. That is the case, for example, with respect to the resettlement of 25,000 families in the Tambopata Valley, Department of Puno, Peru, which have migrated from the Andean plateau, concentrating on coffee cultivation as their main activity.

The third stage to which the United Nations is devoting attention is settlement proper which in reality, is nothing but the culmination of the two earlier stages, as exemplified by the establishment of the so-called bases or centres of direct settlement which will set an example to the neighbouring indigenous communities and lead to the advancement of the region as a whole. The combined efforts of the various international agencies in the region will thus aim at transforming the simple rural communities into centres in which through training in handicrafts and other types of training , the introduction of small-scale industry is encouraged. This will help to satisfy the community's requirements, while being a source of extra earnings to the individual.

Fortunately there are already some examples of this last type of activity at Villapi, Playa Verde and Otavi on the Bolivian high plateau and at Cotoca in the eastern plain, which have already been transferred to the Bolivian Ministry of Rural Affairs. The latter administers them with the help of the various international agencies which are collaborating in the National Rural Development Plan.

In Peru the bases at Chucuito, Camicache and Taraco on the shores of lake Titicaca have their administrative centre at Puno city.

In Ecuador, there is a base at Chimborazo, with offices at Rio Bamba, an experimental workshop at Quito which operates in collaboration with Rio Bamba, and a vocational training institute at Guano where textile workers are trained. Delegates will be familiar with the situation in their own countries.

All these projects which have been in progress for some years in one form or another in various areas and in different countries pursue a clear and definite objective, as far as the United Nations is concerned, with respect to the prime beneficiary, namely the aboriginal peasant; that is to help him to help himself, and to arouse in him interest, initiative, the spirit of co-operation, the desire to feel useful, by identifying himself with the national community as an active and intelligent member of that community and not as a hindrance or a dispossessed person whom it is necessary to help everlastingly, and who remains in the same poverty-stricken state when the aid provided comes to an end.

The idea of the United Nations in setting up direct action bases with various handicraft centres is that progress will follow, that the community will not be satisfied with its handful of well constructed small dwellings or installations and that its occupants will not be regarded by others as prizewinners in a sort of international lottery, but will vie with one another in improving their living conditions.

The result of education and training should be to make the settler believe that when he ploughs, sows and harvests in a more efficient manner, he is making his future and that of his children more meaningful because he feels more sure of himself and because he thinks that his land and the nation as a whole are worth the extra effort.

National governments out of their own resources or with multilateral or unilateral aid must endeavour to co-ordinate the work as a whole and to promote activities which are in the public interest. At the same time they must do everything possible to ensure that the new rural communities which have sprung up through resettlement and the already existing urban communities will co-operate in a joint effort to strengthen their economies.

It is essential too that the technical assistance provided by the international organizations should be applied in a flexible and comprehensive manner, in close contact with national development programmes and especially with national technicians in order that the joint effort may be really effective and that both may learn the lessons of success or failure.

All that I have said so far is in line with the ideals of the United Nations, which are epitomized in the very existence of the programmes for the resettlement of the masses who have migrated spontaneously and of the bases of direct action which have been set up for this purpose. It is somewhat difficult for me to say how far these efforts have been successful, since I am directly involved myself. It is therefore necessary to hear the views of delegates on the subject, and since they, like the foreign technicians who are participating, are anxious that the programmes should succeed, it is possible that suggestions or changes will emerge which will promote the view that the United Nations had in mind in drawing up the programmes and lead to the positive results which we all desire.

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INTER-AMERICAN CONSULTATIVE GROUP
ON COCA LEAF PROBLEMS

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WORK OF THE CONSULTATIVE GROUP ON COCA LEAF PROBLEMS
WHICH MET IN LIMA FROM 26 NOVEMBER TO 7 DECEMBER 1962

For the convenience of participants, the principal passages of the report on the meeting of the Consultative Group on Coca Leaf Problems (Lima, November/December 1962) are reproduced overleaf.

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WORK OF THE CONSULTATIVE GROUP ON COCA LEAF PROBLEMS
WHICH MET IN LIMA FROM 26 NOVEMBER TO 7 DECEMBER 1962

1. The principal aim of the Group was to enable the Government officials present to study the various aspects of the coca leaf problem and to exchange their experiences on the social and economic problems arising from the cultivation and chewing of coca leaf, with a view to the implementation of a government policy for the progressive reduction of coca leaf chewing, and measures to improve living conditions and foster economic development. A detailed agenda, showing all the items discussed by the Consultative Group, is given in annex I.

2. Fourteen documents were prepared for the Group by the United Nations Secretariat. In addition, papers were submitted by participants from Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador and Peru. Three documents were distributed by the observers from the United States Bureau of Narcotics. These documents are listed in annex II.

3. The participants also received copies of the opening addresses by the Ministers of Public Health of Peru, General Victor Solano Castro, and Bolivia, Dr. Guillermo Jauregui Guachalla, and of the closing speeches by Dr. Carlos Quirós Salinas, Chairman, and Dr. Guillermo Vasco.

4. At the end of its closing meeting on 7 December 1962, the Consultative Group expressed its warm appreciation to the Government of Peru and to the United Nations for their part in the organization of the meeting, to the officers of the Group, to the specialized agencies and to the United Nations Scientific Consultant, Dr. Marcel Granier-Doyeux. Special appreciation was expressed for the hospitality and the many facilities so generously extended to the participants in Peru.

5. The resolutions adopted by the Group are reproduced in annex III.

6. Coca leaf chewing, although already practised at the time of the Incas, became a mass problem in the Andean region only after the Spanish conquest. Since then, it has become an important element in the working of the hierarchically organized society established by the conquerors. From that time on, until rather recent times, it has generally or at least very widely been held that coca leaf chewing is indispensable under the economic, social, ethnic and climatic conditions of the highland population; but already in an early period there were some disinterested voices which pointed to the harmful effects of the chewing and demanded its prohibition. In fact, an early Spanish king attempted to enforce such a measure, but he succeeded only in a limited part of the affected highland region; he had to retreat where strong vested, particularly mining, interests forced such action.

7. The whole history of the problem can principally be explained by this existence of powerful groups motivated by what they considered their interests, guided by prejudice and self-deception and hostile to reform. This does not mean that the people in question, although in error, were not arguing in good faith. All this has, of course, been facilitated by the complexity of the problem.

8. The Consultative Group attempted a comprehensive review of the problem of coca leaf chewing. Since it was guided by the consideration that the chewing as a mass phenomenon constituted only a particular aspect of the economic and social problems of the Highland Indians, its discussions represented in fact a rather comprehensive seminar on the economic and social development of the affected Andean region. The papers submitted to the Group and listed in this report give some indication of the wide substantive scope and variety of subjects considered by the Seminar. The existing situation was surveyed and remedial measures were suggested. The quantitative and geographic aspects of the problem were reviewed. Medical (including, in particular, pharmacological), economic, sociological, anthropological, educational, political, legal, administrative, and other questions were expertly discussed.

9. It is not intended and it would indeed be unfeasible to summarize in this report the discussion of all subjects which were studied by the Group in its extensive review of the problems of economic and social development of the Andean region in general, and of the coca leaf in particular. A few points may, however, be indicated which guided the Group in adopting its recommendations.

10. It was unanimously agreed that coca leaf chewing was a harmful habit which should be abolished. This does, however, not mean that all pharmacological problems involved were solved; the Group did not express an agreed opinion on the quantities of cocaine which were absorbed by the chewers or on the exact physiological processes by which this was done.

11. The Group was aware that the habitual chewing of the coca leaf differs from addiction to morphine and morphine-like drugs in that the chewing does not cause real physical dependence. Whether the coca leaf or cocaine was to be considered addiction-producing depended on the terminology used. Under the definition of the World Health Organization, coca leaf chewing may be referred to as a kind of addiction. It was, however, noted that other scientific definitions required the element of physical dependence and thus did not cover the chewing.

21. It was agreed that this question of terminology was not really important. What was essential was that there was no doubt that coca leaf chewing, although different from morphine addiction, was harmful and should be abolished.

22. It was also the general consensus that not all elements of the aetiology of the chewing were clarified. It was therefore recommended that the governments principally concerned should undertake epidemiological studies of the habit. It was, however, agreed that such studies should not delay the measures taken or to be taken with a view to the abolition of the chewing within the shortest possible period. Such studies may, however, facilitate an improvement of the methods adopted towards this end.

23. There was also consensus that only relatively few chewers were influenced by neurotic or psychopathic conditions such as those which were the principal cause of drug addiction in an industrialized society. The chewing was generally a response to the very difficult economic, social and harsh climatic conditions under which the highland Indians lived. It removes hunger, kills the appetite, and enables the endurance of great physical strain. These qualities of the leaf must appear very attractive in poor regions which have an unfavourable climate, generally a soil not very suitable for agriculture, primitive means of transportation, and which produce insufficient quantities of food; but these seemingly attractive qualities of the coca leaf are even more damaging to the health, productive capacity and life expectancy of the chewer than the continuous intake of cocaine. A vicious circle thus arises. The lack of adequate food frequently causes the chewing which, in turn, reduces the productive capacity of the chewer and prevents him from earning enough to enable his adequate nutrition. The coca leaf problem is thus basically an economic and social question. Since economic and social development is already on more general grounds a necessity for the Andean regions and for the countries concerned as a whole, the chewing constitutes only a particular aspect of this serious problem.

24. The problem is economic because it can safely be expected that by improvement of the economic conditions and in particular of the living standard of the affected population, the incidence of coca leaf chewing can be radically reduced. It is, however, also economic in several other ways. A relatively large number of people derive their livelihood from the cultivation of the coca bush or from the

trade in the leaves. Substitute earning facilities must be created for those people if and when the production of and the trade in the leaves is progressively limited to medical, scientific and other legitimate needs in accordance with the gradual abolition of the chewing. Without such substitution not only the people engaged in the cultivation of the bush or in the coca leaf trade would suffer, but the national economy as a whole might seriously be affected by the repercussions, on other trades, of the loss of income of a considerable part of the population. Creation of substitute earning facilities, however, would also be a very important part of the process of economic development leading to an increased living standard of the whole population of the Andean regions and thus to an essential reduction of the number of chewers.

Considerable revenue is also received by some governments from the coca leaf. Substitute sources of public income would have to be found.

16. Various economic measures were considered which would facilitate the radical reduction of coca bush cultivation resulting from the abolition of the chewing and the raising of the living standards of the highland Indians practising and chewing.

17. Many crops were considered which could be substituted for the coca bush. It was pointed out that it was important that the substitute crop would have to be equally or even more profitable than the coca bush. The need for improving the roads and generally the transportation facilities was noted in this connexion. The question of marketing was considered. It was mentioned that coca bush cultivation often led to soil erosion and that the bush was often grown on poor soil not suitable for other crops. In many cases, afforestation or complete abandonment of the soil would be necessary. In such cases financial compensations for the growers of the bush would be required.

18. Several other activities were discussed by which the former growers of the bush and other members of the highland population might earn a satisfactory livelihood. Animal husbandry was suggested in view of the shortage of protein foods in these regions. It was however mentioned that not all parts of the highlands concerned were suitable for cattle raising which could be carried on more economically in other parts of the national territory.

19. The development of non-agricultural activities such as handicrafts and industrial enterprises to substitute for coca bush growing was discussed. Pre-investment problems such as the construction of transportation facilities were taken into account. The problem of resettlement of highland inhabitants, particularly of those for whom no satisfactory substitute livelihood could be found and the difficulties inherent in such population transfers were examined.

20. Various educational problems were studied. The importance of improved general education, in particular that of elimination of illiteracy and of occupational training, for the raising of living standards, was emphasised. Better educational standards would also be helpful in efforts to convince the highland Indians of the harmful character of their chewing. The usefulness of nutrition education and of propaganda intended to create an atmosphere favourable to the abolition of coca leaf chewing was also stressed. The Seminar expressed its strong view that the payment of wages in coca leaves should not be tolerated and should be subject to effective penal sanctions.

21. The need for improvement of public health services was discussed. The lack of facilities for satisfactory and healthy leisure time activities was mentioned. It was generally agreed that the development of community life would constitute an important weapon in the campaign against the coca leaf chewing. Attention should also be given to the medical, social and moral rehabilitation of coca leaf chewers.

22. The group was of the opinion that in taking economic and social measures such as those referred to above, Governments should be aware of the necessity and of their duty to integrate the highland Indian in the economic and social life of their nations. National and international efforts on the lines of the present Andean Indian Programme were commended and should be increased.

23. The Seminar was of the opinion that the abolition of coca leaf chewing and the reduction of coca leaf production to the quantities needed for medical, scientific and other legitimate purposes, was not only in the national interest, but would also constitute an act of international solidarity with the countries which were victims of the international cocaine traffic. Without the abolition of the chewing and the controlled limitation of coca leaf production to legitimate requirements a really successful campaign against this traffic was very difficult indeed, if not impossible.

24. The Consultative Group was aware of and wished to commend the great efforts made by the governments concerned to advance the economic and social well-being of their populations and in particular also of their indigenous inhabitants. It recognized, however, also the great difficulties involved. It expressed its satisfaction that all governments concerned had adopted as their policy the aim of prohibiting coca leaf chewing and of reducing coca leaf production to the quantities needed for legitimate purposes. The members of the Seminar agreed that while it was desirable to achieve this aim as speedily as feasible, a gradual approach towards this goal would have to be taken in those countries which had a particularly serious coca leaf problem.

It was mentioned in this connexion that the aim of overall reduction of coca leaf production did not exclude some extension of the cultivation of such varieties of the bush as were particularly suitable for the extraction of cocaine for medical purposes or for the preparation of the flavouring agent used in the manufacture of beverages.

25. The Group was also of the opinion that effective control of coca leaf production required the establishment of national monopolies which should have the exclusive right of licensing coca bush cultivators, of designating the plots on which the bush may be grown, of buying the crops and of the wholesale and international trade in the coca leaves. It was agreed that the creation of such a complete monopoly was not immediately possible where the necessary administrative conditions did not yet exist. The Group reviewed with appreciation the measures taken (cadastral survey, census of coca bush plants) and organizational structures erected by governments with a view to establishing complete coca leaf monopolies.

26. The participants in the Seminar, however, considered that immediate and strong measures must be taken to intensify the fight against the illicit traffic in cocaine, to improve international co-operation among the Governments concerned and with the United Nations and Interpol and to ensure the effective punishment of illicit traffickers.

27. The Seminar noted that the Governments concerned often did not have sufficient means (financial and otherwise) to carry out the necessary economic and social measures, to make up the loss in tax revenue, to compensate landowners, etc.

It was generally agreed that international financial and technical assistance would urgently be needed. Not only the help of international organizations of public law should be enlisted, but also that of individual governments and private non-profit organizations willing to help. It was pointed out in this connexion that food supplied from resources of the UNO-FAO World Food programme would be very helpful in the transitional period of shifting from coca bush cultivation to other crops. The assistance given by international organizations in the implementation of the Andean Indian programme was specially appreciated.

It would also be helpful in this context if Governments would only permit the import of coca leaves produced in Bolivia or Peru or of crude cocaine manufactured in these countries. The reduction of coca leaf production in the countries concerned should also not be offset by the commencement of, or increase in, coca leaf production elsewhere.

Several participants of the Seminar, however, called the attention of the Group to the fact that the means of international organizations for assistance were limited and that it could be expected that the assistance which would be given by friendly foreign governments would, however generous, also be relatively modest. The governments having a coca leaf problem would therefore have to rely primarily on their own resources.

28. The need for co-ordinating national and international efforts and means as well as for enlisting public opinion of the countries concerned, of the region and of the whole world was also emphasized. National Committees composed of representatives of all government departments in question and of interested private organizations should be established to this end. In these programmes of co-ordinated action, the needs of the indigenous population should particularly be kept in mind. Periodical conferences of American States should be held to review the progress made in the field.

29. It was recommended that the Governments concerned make expert surveys of their existing programmes of economic and social development with a view to determining whether the measures already adopted or planned were sufficient, or would have to be modified or supplemented by additional steps in the light of the special features of the coca leaf question. It was also realized that the measures taken would often have to be different not only from country to

country, but also from district to district in the same country, e.g. a substitute crop for the coca bush or a new industry which would be suitable in one district would sometimes not do in another district. The surveys should therefore be directed to the special needs of particular coca leaf producing or coca leaf chewing districts.

30. After these surveys have been completed, national conferences in the countries principally concerned should be called for the purpose of adopting a co-ordinated national programme of action. These conferences should be composed of all national departments concerned. Representatives of interested international organizations, of foreign governments willing to assist, of the church and of private organizations capable of making a contribution, should also be permitted to participate in these conferences. In view of the limited means which may be available, the national conferences may decide to concentrate action on particular districts.